



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/509,518      | 11/26/2004  | Isamu Takahara       | 121230              | 5684             |

25944 7590 01/10/2006

OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

|          |
|----------|
| EXAMINER |
|----------|

JOHNSON, STEPHEN

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3641

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                       |  |  |
|------------------------------|---------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/509,518  | <b>Applicant(s)</b><br>TAKAHARA ET AL. |  |
|                              | <b>Examiner</b><br>Stephen M. Johnson | <b>Art Unit</b><br>3641                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 34-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 34-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/2004; 12/2005</u> | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 3641

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fogle Jr. et al. (286) in view of Campbell (278) or JP A 9-126697.

Fogle Jr. et al. disclose an initiator comprising:

- |   |  |
|---|--|
| a) a conductive header;   | 50, 60                                     |
| b) a first lead pin;  | 42   |
| c) a second lead pin;   | 40   |
| d) an insulating member (glass);                                | 88, 90; col. 3, lines 33-35                |
| e) a bridge wire;   | 44   |
| f) a cup-shaped casing;   | 52   |
| g) an airtight seal;  | col. 2, lines 53-57;<br>col. 3, lines 6-15 |
| h) an explosive; and  | 46   |
| i) a stepped interface between conductive header and insulator. | (see fig. 2)                               |

Fogle Jr. et al. apply as recited above. However, undisclosed is a taper between the conductive header and the insulator. Campbell teaches a taper between the conductive header and the insulator (see fig. 8). JP A 9-126697 also teaches a taper between the conductive member and the insulator (see fig. 3; items 31, 32). Applicant is substituting one form of connection

Art Unit: 3641

between header and conductor for another in an analogous art setting as explicitly encouraged by the secondary reference (compare figs. 1, 2, 4, 7, and 8 of Campbell; compare figs. 1-4 of JP A 9-126697). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Campbell or JP A 9-126697 to the Fogle Jr. et al. initiator and have an initiator with a different type of interconnection between the conductive header and insulator.

3. Claims 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fogle Jr. et al. (286) in view of Stonestrom (520).

Fogle Jr. et al. disclose an initiator comprising:

- |  |  |
|--|--|
| a) a conductive header;  | 50, 60                                     |
| b) a first lead pin;   | 42   |
| c) a second lead pin;  | 40   |
| d) an insulating member (glass);                                   | 88, 90; col. 3, lines 33-35                |
| e) a bridge wire;  | 44   |
| f) a cup-shaped casing;  | 52   |
| g) an airtight seal;   | col. 2, lines 53-57;<br>col. 3, lines 6-15 |
| h) an explosive; and   | 46   |
| i) a stepped interface between conductive header and<br>insulator. | (see fig. 2)                               |

Fogle Jr. et al. apply as recited above. However, undisclosed is a taper between

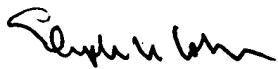
Art Unit: 3641

the conductive header and the insulator. Stonestrom teaches a taper between the conductive header and the insulator (items 1, 5, 10 and figs. 1 and 3-6). Applicant is substituting one form of connection between header and conductor for another in an analogous art setting as explicitly encouraged by the secondary reference (see col. 3, lines 54-56 of Stonestrom). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Stonestrom to the Fogle Jr. et al. initiator and have an initiator with a different type of interconnection between the conductive header and insulator.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Johnson whose telephone number is 571-272-6877 and whose e-mail address is ([Stephen.Johnson@uspto.gov](mailto:Stephen.Johnson@uspto.gov)). The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The Central FAX phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 800-786-9199.



STEPHEN M. JOHNSON  
PRIMARY EXAMINER

Stephen M. Johnson  
Primary Examiner  
Art Unit 3641

SMJ  
January 2, 2006